



Capital Project Management Information System (CPMIS)

Board Transportation Committee

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What is CPMIS?

CPMIS is a joint effort of the Department of Transportation and the Department of Public Works and Environmental Services, to procure and implement a standardized, state of the art software tool that provides full life cycle program and project management capabilities for capital improvement projects.

- Wastewater,
- Buildings,
- Stormwater,
- Developer Defaults,
- Transportation, and
- Public Private Partnerships

Goal:

- Implement a centralized, common Program and Project Management system with integrated tools that will allow for more efficient Project Management and reporting of Capital Projects of various type, size, scope and complexity.

Why CPMIS?

- From May to November, 2015, FCDOT and DPWES conducted an internal Needs Analysis by surveying Project Managers across all Divisions within each Department.
- The Survey results indicated a need for a comprehensive solution to address shortcomings in current tools and integration with other County systems.

Why CPMIS?

- Workshops were conducted with Project Managers to assess system needs and requirements to address the shortcomings in current system tools used to manage programs and projects across the entire life cycle.
- Specific Needs and Requirements were grouped into 5 major categories:
 - General (functionality, ease of use, integration)
 - Project Management
 - Contract Management
 - Financial Management
 - Document Management

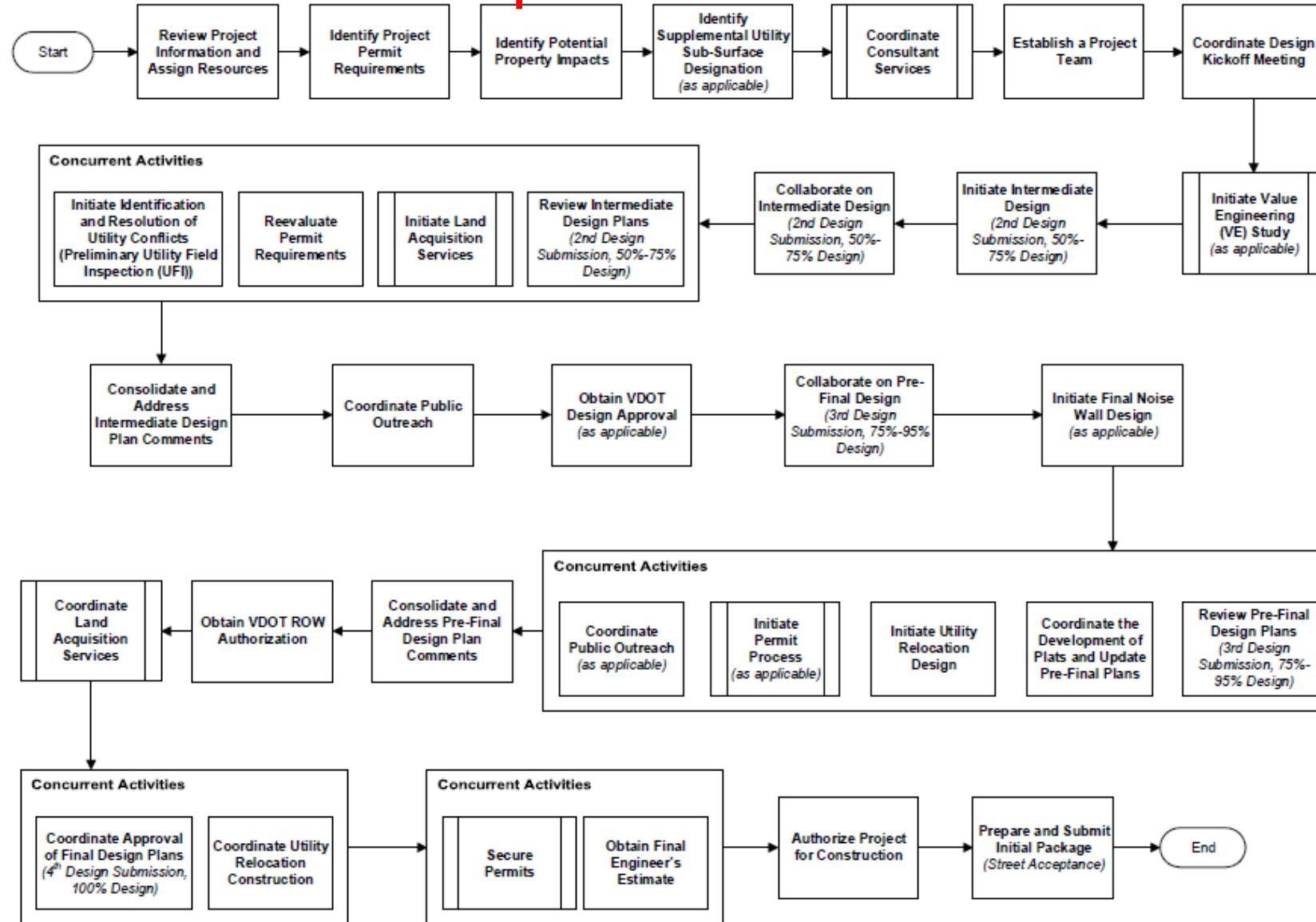
Example: Financial Management Requirements

Financial Management			High Priority	One Response per Requirement (Vendor Use Only)						Vendor Comments/ Proposal Section Reference
#	Functional Requirements	Topic		Y	Cfg	Cmz	F	3	N	
FR4.1	Captures current system/portfolio finance baseline by project schedule/date for financial reporting. Examples of project dates could be date of project start and end dates, fiscal year they are occurring in, etc.	Financial Management	YES							
FR4.2	Tracks project finances by user defined categories (budgets, costs, revenue, cash flow, project type, (capital or other), project phases, organization hierarchy level, task/activity, and sub-task/sub-activity) at a granular level	Financial Management	YES							
FR4.3	Captures revenues on all projects over multiple years.	Financial Management	YES							
FR4.4	Calculates and reports by project parameters (e.g., deliverable, county, department/division, project type, project phase, program, funds, etc.)	Financial Management	YES							
FR4.5	Tracks financial details of client contract agreements e.g., start/end date, contract value, payment milestones, liquidated damages, contract balance, retainages, contract amendments	Financial Management	YES							
FR4.6	Tracks expected and projected direct cost by portfolio, funded programs, project level tasks, department, with summary information reporting	Financial Management	YES							
FR4.7	Tracks funded amount and short falls in comparison to budget estimates	Financial Management	YES							
FR4.8	Tracks Total Project Estimates (TPE) for all phases of the project (design, permits, utilities, equipment, etc.) for all years (active or closed fiscal years), budget years, etc. (currently use a TPE form that breaks down the cost)	Financial Management	YES							
FR4.9	Manages all project data, including profitability calculations, at a enterprise, county and project level	Financial Management	YES							
FR4.10	Provides standard and customizable views for project historical costs, current costs and forecasted project costs	Financial Management	YES							
FR4.11	Provides standard and customizable views for scope changes and the impacts to schedule, budget, costs and resources.	Financial Management	YES							
FR4.12	Generates invoices for funded projects and provides breakdowns of charges by project level, customer, division, or other user defined criteria. Must be able to charge multiple invoices against a contract and compare planned vs. actual costs	Financial Management	YES							
FR4.13	Forecasts all project budget item to GL accounts	Financial Management	YES							
FR4.14	Maintains history of project budget and schedule (preliminary estimates; initial baseline; re-baselines) and compare with actuals (and other analytics)	Financial Management	YES							
FR4.15	Refines budget between initial estimate and project start without being required to completely redevelop the budget (i.e., refine existing budget figures / breakdowns).	Financial Management	YES							
FR4.16	Provides timely recording of actual project expenses and reporting against forecast	Financial Management	YES							
FR4.17	Provides ability to analyze actual vs. forecast project budgets, including spend rate analysis	Financial Management	YES							
FR4.18	Defines and manages contingency budgets distinct from allocated project budgets	Financial Management	YES							
FR4.19	Aligns project budgets and costs with resource types and associated rates	Financial Management	YES							
FR4.20	Provides budget tracking and reporting at all levels (portfolio, program, project, phase, milestone, task, etc.)	Financial Management	YES							
FR4.21	Allows for multi year revenue forecasting by revenue type. And, tracks balances by revenue type after each source of revenue has been allocated/programmed to projects.	Financial Management	YES							
FR4.22	Provides ability to write notes in the application itself for each division in a department based on permissions.	Financial Management	YES							
FR4.23	Provides the ability to integrate with accounting system (FOUCS/SAP) to identify/capture cost center, names, contracts and project financial data (e.g., budget, actuals, expenditures/payments, contract amendments, etc.)	Project Accounting	YES							
FR4.24	Maintains audit log of all accounting changes made over time	Project Accounting	YES							

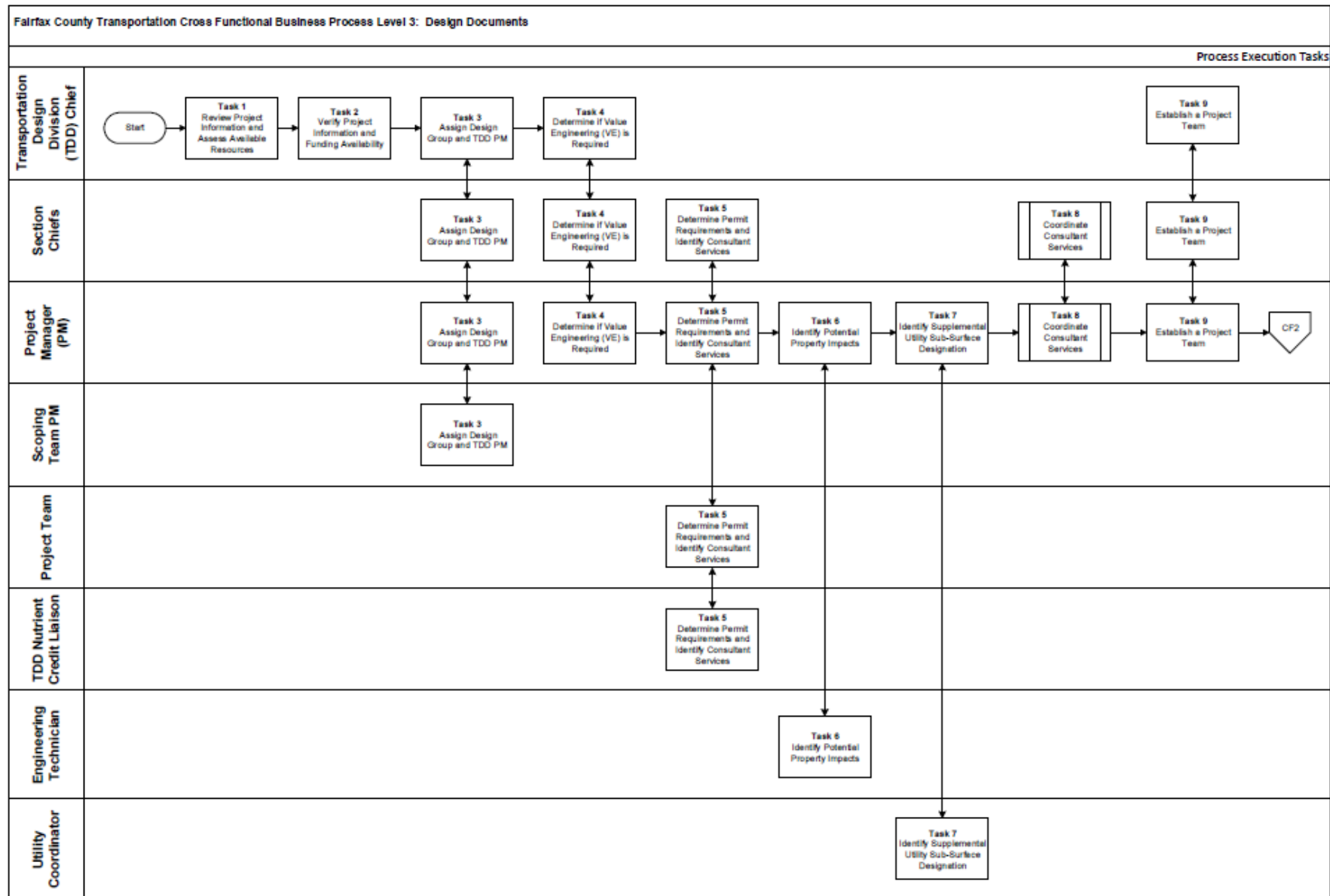
Why CPMIS?

- From June 2016 to March 2017, DPWES and FCDOT completed Capital Project Process Mapping across all project types which will be integrated into the new system.
- Workflows were developed for each major project type:
 - Inconsistencies across departments, divisions, and project types have been identified.
 - Initial recommendations for process improvements have been identified.
 - Has already resulted in improved Project Management and CIP development.

Sample Workflow



Sample Workflow “Swim Lanes”



Critical Functions of CPMIS

- Improve Collaboration (internal and external).
- Improve Reporting Capabilities.
- Provide full Project Management capabilities (beyond just tracking).
- Improve Efficiency.
- Eliminate Redundancy.
- Improve Predictability and Consistency of project Scheduling and on-time/late project reporting.
- Improve Retention and Retrieval of project information (cost, schedule, etc.) and documents.

Critical Functions of CPMIS (cont.)

- Generate historical reports for key project information by project type or category (for example: average cost per square ft. for fire stations constructed within the past five years).
- Provide historical data that can be used as a basis for future capital project planning.
- Provide a flexible, user-friendly, cost-effective Project Management platform that will easily accommodate future adjustments/enhancements.

Major Components of CPMIS

- General:
 - Conduct simple and complex search queries
 - Workflow management
 - Integration with existing County systems and tools (e.g., FOCUS, GIS)
- Program and Project Management:
 - Support multiple key program and project management activities
 - Portfolio Management
 - Project Planning
 - Schedule Management
 - Project Administration

Major Components of CPMIS

- Program and Project Management (cont.):
 - Change Requests
 - Issue and Risk Management
 - Project Collaboration
 - Performance Management
 - Time and Resource Management
 - Project Closeout

Major Components of CPMIS

- Contract Management:
 - Provide support for the life of a contract such as solicitation, evaluation, selection, negotiation, award and performance management.
 - Manage multiple contracts on a single project and across multiple programs or projects.
- Financial Management:
 - Maintain and track program and project finances and accounting across the entire life cycle of a capital improvement program or project including integration with FOCUS.

Major Components of CPMIS

- Financial Management (cont.):
 - Capability to provide “What if....” modeling of funding, cash flow, and schedule across programs and projects to facilitate long range planning of the capital improvement program.
- Document Management:
 - Capability to upload and maintain project documents, plans, contracts and other critical files, track and maintain version history including draft and approved state, and maintain central repository for all program and project related documents.
 - Capability to share and collaborate on documents with internal and external stakeholders.

Major Components of CPMIS

- Reporting:
 - Capability to provide standard, customized and ad hoc reports and dashboards based upon user role and need.
 - Generate ADA-compliant reports.
 - Provide “What if..” and modeling capabilities to view impacts of changes to funding, cost and schedule.
 - Reporting on program/project and contract estimates vs. actual costs.

Key Milestones To Date

- DPWES and FCDOT established a Core Team which conducted a Needs Assessment and determined both agencies could benefit from a robust project management system.
 - Needs Analysis
 - Assessed current tools and needs
 - Conducted a market analysis and benchmarked other jurisdictions using similar systems
 - Developed Capital Project process flow maps for each major capital improvement project type that will be integrated into the system
 - Developed RFP in cooperation with DPMM.

Key Milestones To Date (cont.)

- Briefed Senior IT Steering Committee
- RFP issued
- Vendor proposals evaluated and product demonstrations held
- Negotiations with top ranked vendors are underway

Next Steps

- Complete Negotiations and Select Best Vendor
- Award and Execute Contract
- Begin Implementation and integration efforts
- Implementation to be Phased based upon project type:
 1. DPWES - Wastewater
 2. DPWES – Buildings/Public Private Partnerships
 3. DPWES – Stormwater
 4. FCDOT – Transportation and Developer Defaults

Funding

- Since CPMIS is directly tied to and solely for management and completion of the Capital Improvement Program, funding for this effort will be provided via the programs and projects within the CIP.
- Each Program and Project in the approved CIP will be “charged” for a portion of the cost of the CPMIS system including the initial implementation costs and yearly licensing and maintenance costs.

Questions?